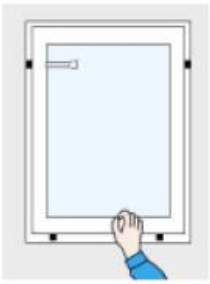
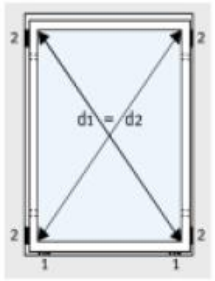
2023

Installation instructions

Skaala's products are installed based on the standard of the Swedish carpentry industry.

Option A: installation with adjustable frame sleeves with screws

	Support blocks like A, alternatively adjustable frame sleeves, possibly with pressure distribution washer, in the sill. Use a spirit level to determine the horizontal level.		Distribute the space around the frame evenly and fix it with the upper sleeves. Adjust the creepage depth and check with a spirit level that the frame neither tilts inwards nor outwards. Fix the lower ones, check that the diagonal measurements are the same, and pull the fastening screws through the sleeves.
	It is important that the diagonal dimensions of the frame are equal, i.e. the dimension d1 = d2, see sketch		Frame sleeves can often be fitted from the factory, just remember to mention it when ordering.

Option B: installation with support blocks, screws, and wedges

Support blocks,1, are placed under the sill, next to both jambs and under possible mullions to achieve the required space for a joint between frame and wall. Use a spirit level to determine the horizontal level.

The frame is put in place (temporarily place a block/board in the outer part of the window opening as a safety measure) Support wedges, 2, are used for vertical adjustment of the frame. Support blocks and support wedges must be made of hard and dimensionally stable material and also have good long-term stability (e.g. plastic, dried pine or fir, oak, beech or other hard material).

Check with a spirit level that the frame neither tilts inwards nor outwards. Fixation at the wedges with screw/frame screw. The type, size and location of the fasteners on the frame must not block proper ventilation nor interfere with an unbroken vapor barrier between frame and wall. Blocks and wedges should therefore, if possible, have 20 mm less depth than the frame. It is important that the diagonal dimensions of the frame are equal, i.e. the dimension d1 = d2, see sketch

Installation instructions

When installing larger side-hung windows, balcony doors and exterior doors, a support block should be placed below the lower fastener (on the hinge side), in the extension of the sill/threshold, to transfer the force of the weight of the casement/door leaf to the frame. When mounting with a frame sleeve (possibly with pressure distribution washer) a support block is usually not necessary. Exterior doors and window doors should have support blocks (alternatively included support should be expanded) at the mortise plate as a burglary deterrent measure.

When installing in concrete, brick, lightweight concrete or lightweight clinker drilling and expansion anchors for fastening screws are required. However, there are certain types of concrete screws where anchors are not necessary, and which also does not require pre-drilling in lightweight concrete or lightweight clinker. In the case of a strong steel stud, pre-drilling is usually required. In goods up to 4 mm, a self-drilling screw can be used. Suppliers of lightweight concrete and light clinker recommends joint foam in some cases.

Shoring may then be needed so that the expansion of the foam does not deform long jambs. An alternative is a longer concrete screw that is screwed directly in lightweight concrete (possibly with anchor mass) or lightweight clinker. The sleeve is supplemented with a pressure distribution washer. Foaming and sealing can then take place as below. Fine adjustment of the casement in the frame (hinges) may be needed when the frame is fixed.

Foaming, sealing, drainage and ventilation

The wall facade, the window's external connections and any protective cladding on the frame and casement must prevent rain (driving rain) from reaching the inner parts of the wall and window joints. In practice, that requirement can be difficult to completely achieve.

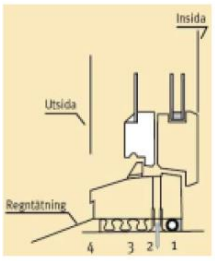
It is therefore important to provide both the wall (inside the facade) and the window joint with one air gap for drainage and ventilation, so that any penetrating water can be diverted to the outside and the up- moisture is ventilated away. The air gap of the window joint must be placed outside the drive material, see figure, and should be at least 15 mm deep.

Thermal insulation

The caulking is the thermal insulation of the window joint. It is important that the thermal insulation is evenly distributed throughout the joint - all around - and that the joints of the insulation overlap each other so that no thermal bridges occur. Cold bridges can occur at the mounting points and where support blocks and wedges are located. A continuous caulking also contributes to noise reduction.

Vapor sealing

A joint compound is usually used for vapor sealing (vapor barrier), but rubber strips can also be used. The demands that must be made on such a sealing material are:



- Good adhesion to adjacent surfaces so that the joint becomes moisture tight.
- Good aging resistance for long-term function.
- Good elasticity to be able to take up relative movements between frame and wall caused by handling, temperature and moisture movements, readjustment of the frame etc.
- Environmentally friendly material.

Materials in 1) Air and vapor sealing - joint compound/bottom strip - foamed bottom strip with closed cells of polytene• - plastic-coated glass wool caulk – diffusion proof EPDM strip with wood fiber core (moistened to swell) Seal inside must connect to the wall's plastic foil so that an unbroken vapor barrier runs against the frame. Material in 3) Heat- and noise isolation (caulking). Made with non-moisture absorbing insulation material. (Glass wool strip, Stone wool strip 4) air gap for ventilation, min 15 mm, around the entire frame.